

## Puget Sound Polychaetes: Cossuridae



### Family Cossuridae

#### General notes (from Hilbig, 1996):

- Small, burrowing worms no longer than about 15mm.
- Present in mixed sandy and muddy sediments.
- Can occur in high densities and may be numerically dominant species.
- Inconspicuous, featureless, except for single middorsal branchial filament.

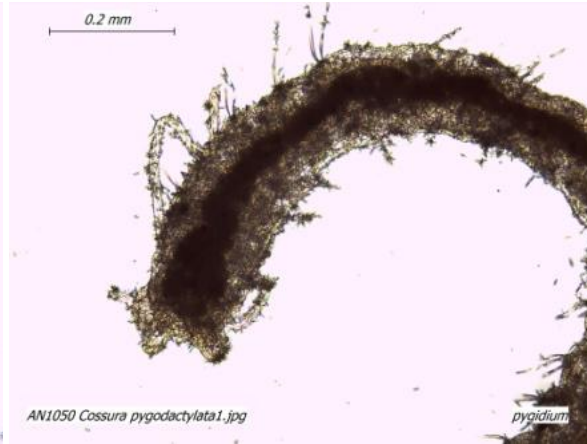
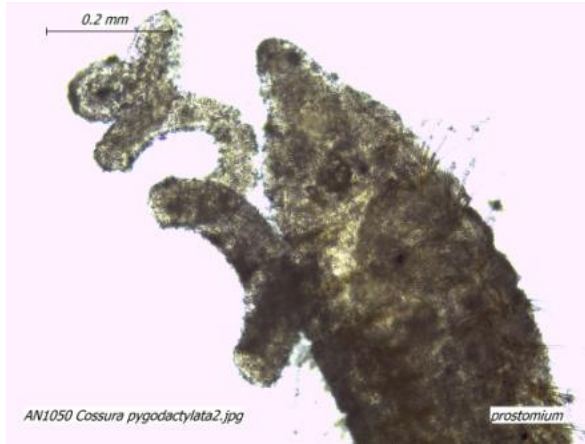
### Genus *Cossura*

- The only genus in Puget Sound.
- Two species in Puget Sound – distinguished primarily by where middorsal branchial filament is attached.
- Parapodia are at anterior edge of setiger. This is how you count the setigers.
- Almost never get the posterior end of the cossurids.
- All cossurids look alike superficially, but can be distinguished by:
  - Which setiger the middorsal filament is inserted on.
  - Methyl green stain pattern.
- All with simple limbate setae.

### *Cossura pygodactylata* Jones, 1956

- Dorsal branchial filament emerges from posterior end of setiger 2.
- Pygidium with up to 20 digitiform processes and 3 anal cirri.
- Methyl green staining pattern solid through setiger 2, remainder of thorax with dorso- and ventrolateral circlets or irregular groups of single cells – see Santa Barbara Atlas illustration, pg 399.

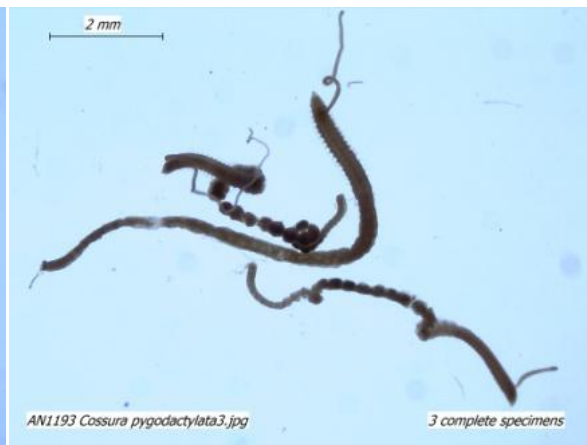
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Prostomium – filament arising from posterior end of setiger 2 (l); pygidium with cirri and digitiform processes (r)



Anterior, dorsal - Dorsal branchial filament emerges from distal end of setiger 2 (l, r)



Whole specimens, various views (l, r)

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### *Cossura bansei* Hilbig, 1996

- Not as common as *C. pygodactylata*.
- Dorsal branchial filament emerges from posterior end of setiger 3.
- Digitiform pygidial processes absent.
- Small species, width to 0.5mm.
- Thorax with 20-31 segments.
- Abdomen with narrow, flattened segments similar to thorax.
- Methyl green staining pattern including large dorso- and ventrolateral patches in thorax and small ones in abdomen, but no lateral stain between setal fascicles – see Santa Barbara Atlas illustration.
- Occurs in mixed sand and silt.



Anterior, dorsal - Dorsal branchial filament emerges from distal end of setiger 3

## Literature

Hilbig, B. 1996. Chapter 9, Family Cossuridae Day, 1963. Pages 385-400. IN: Blake, J.A., B. Hilbig, and P.H. Valentich-Scott (editors). Taxonomic Atlas of the Benthic Fauna of the Santa Maria Basin and Western Santa Barbara Channel. Volume 6 - The Annelida Part 3. Polychaeta: Orbiniidae to Cossuridae. Santa Barbara Museum of Natural History. Santa Barbara, California. ISBN 0-93649-11-5.

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### More Information

More information about Puget Sound benthic invertebrates is available at:  
<http://www.ecy.wa.gov/programs/eap/sediment/>

This document is available on the Department of Ecology's website at  
<https://fortress.wa.gov/ecy/publications/SummaryPages/1403236.html>.

If you need this document in a format for the visually impaired, call (360) 407-6764. Persons with hearing loss can call 711 for Washington Relay Service. Persons with a speech disability can call (877) 833-6341.

These notes were compiled by Kathy Welch and Maggie Dutch after a polychaete workshop held on November 13, 2013 at the Department of Ecology.